

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft Louisiana Pollutant Discharge Elimination System Permit No. LA0020125; AI 19422; PER20060001 to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Town of Mamou
Town of Mamou Wastewater Treatment Facility
Post Office Box 490
Mamou, LA 70554
- II. **PREPARED BY:** Todd Franklin
- DATE PREPARED:** March 7, 2006
- III. **PERMIT ACTION:** reissue LPDES permit LA0020125, AI 19422; PER20060001
- LPDES application received: January 23, 2006
- EPA has not retained enforcement authority.
- LPDES permit issued: February 1, 2001
 LPDES permit expired: January 31, 2006

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Town of Mamou.
- B. The permit application does indicate the receipt of industrial wastewater. The industrial discharge is from Big Mamou Bio-Solids, Inc.
- C. The facility is located on LA Highway 13 in Mamou, Evangeline Parish.
- D. The treatment facility consists of a two acre aerated lagoon followed by a nine acre LEMNA pond. Disinfection is by ultraviolet light.
- E. Outfall 001

Discharge Location: Latitude 30° 38' 0" North
 Longitude 92° 25' 40" West

Description: treated sanitary wastewater

Design Capacity: 0.6 MGD

Type of Flow Measurement which the facility is currently using:

V-Notch Weir with Totalizing Meter / Continuous Recorder

V. RECEIVING WATERS:

The discharge is into Grand Louis Bayou; thence into Bayou Nezpique in segment 050301 of the Mermentau River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 050301 of the Mermentau River Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Not Supported	Full	Not Supported	N/A	N/A	N/A	Full

^{1/}The designated uses and degree of support for Segment 050301 of the Mermentau River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 050301 of the Mermentau River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 21, 2005, from Watson (FWS) to Gautreaux (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Todd Franklin
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX.

PROPOSED PERMIT LIMITS:

Subsegment 050301, Bayou Nezpique-Headwaters to Mermentau River, is not listed on LDEQ's Final 2004 303(d) list as impaired. However, subsegment 050301 was previously listed as impaired for organic enrichment / low DO, pathogen indicators, suspended solids / turbidity / siltation, nutrients, and phosphorus, for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 050301:

Bayou Nezpique Watershed TMDL for Dissolved Oxygen Including WLAs for Nine Treatment Facilities and Bayou Nezpique TMDL for Nutrients

As per the TMDLs referenced above, in order to maintain the summer season (April through November) DO criterion of 3.0 mg/L and the winter season (December through March) DO criterion of 5.0 mg/L, the Town of Mamou Wastewater Treatment Facility would be required to meet the following effluent limitations: 10 mg/L CBOD₅ / 2 mg/L NH₃-N / 5 mg/L DO. Therefore, these limitations shall apply to this facility.

Bayou Nezpique and Bayou Castor TMDLs for Fecal Coliform

As per the Bayou Nezpique and Bayou Castor Fecal Coliform TMDL, there will be no change in the permit requirements based upon a wasteload allocation resulting from this TMDL. Therefore, Fecal Coliform effluent limitations will remain as previously permitted in the LPDES permit.

Total Maximum Daily Load (TMDL) for TSS, Turbidity, and Siltation for the Mermentau River Basin

As per the TMDL for TSS, Turbidity, and Siltation for the Mermentau River Basin, point source loads are so small as to be insignificant, and because effective policies are in place to limit TSS discharges, no specific reductions from point sources are required. TSS limits will remain as previously permitted in the LPDES permit.

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	50	10 mg/l	15 mg/l	Limits are set in accordance with the <i>Bayou Nezpique Watershed TMDL for Dissolved Oxygen Including WLAs for Nine Treatment Facilities and the Bayou Nezpique TMDL for Nutrients</i>
TSS	75	15 mg/l	23 mg/l	As per the <i>Total Maximum Daily Load (TMDL) for TSS, Turbidity, and Siltation for the Mermentau River Basin</i> , no reductions were required for point sources. Therefore, the limitations shall remain as previously permitted under the LPDES permit.
Ammonia-Nitrogen	10	2 mg/l	4 mg/l	Limits are set in accordance with the <i>Bayou Nezpique Watershed TMDL for Dissolved Oxygen Including WLAs for Nine Treatment Facilities and the Bayou Nezpique TMDL for Nutrients</i>
Dissolved Oxygen*	---	5 mg/l	N/A	Limits are set in accordance with the <i>Bayou Nezpique Watershed TMDL for Dissolved Oxygen Including WLAs for Nine Treatment Facilities and the Bayou Nezpique TMDL for Nutrients</i>

*This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for

this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X.

PREVIOUS PERMITS:

LPDES Permit No. LA0020125: Issued: February 1, 2001
Expired: January 31, 2006

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD ₅	10 mg/l	15 mg/l	1/week	3-Hour Composite
TSS	15 mg/l	23 mg/l	1/week	3-Hour Composite
Ammonia-Nitrogen	2 mg/l	4 mg/l	1/week	3-Hour Composite
Dissolved Oxygen	5 mg/l minimum	---	1/week	3-Hour Composite
Fecal Coliform Colonies	200	400	1/week	Grab
pH	Range (6.0 su – 9.0 su)		1/week	Grab

XI.

ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspection performed for this facility.

Date – June 6, 2002

Inspector - LDEQ

Findings and/or Violations -

1. Permit – Satisfactory – permit is current and was available for review.
2. Records/Reports – Satisfactory – all DMRs and lab results were in order and available for review.
3. Facility Site – Satisfactory – facility grounds found to be in good condition; levees were intact and well kept; 3 cell pond system (LEMNA system).
4. Effluent – clear in color and free of foam or any solids.
5. Operations and Maintenance – all treatment units in operation; facility uses UV lights for disinfection; nitrification zone has problems with filters becoming clogged; facility removes duckweed from LEMNA pond about twice per year;

duckweed is sent to Arizona Chemicals in Oakdale.

6. Flow Measurement – Satisfactory – facility uses a Polysonic flow meter; operating properly at time of inspection.
7. Self Monitoring – Marginal – facility refrigerates samples while holding them but did not have a thermometer in the refrigerator; will be replaced.

B) Compliance and/or Administrative Orders

A review of the files indicates the following most recent enforcement action administered against this facility:

LDEQ Issuance:

Compliance Order

Enforcement Tracking No. WE-C-02-0324

Date Issued - July 29, 2004

Findings of Fact:

1. The Respondent owns and/or operates a sewage treatment facility located on LA Highway 13 west of Mamou, Evangeline Parish, Louisiana. The Respondent was issued LPDES Permit LA0020125 on February 1, 2001, with an expiration date of January 31, 2006. Under the terms and conditions of LPDES permit LA0020125, the Respondent is authorized to discharge treated sanitary wastewater from its facility into Grand Louis Bayou, thence into Bayou Nezpique, both waters of the state.
2. An inspection on June 6, 2002, revealed that the sample refrigerator did not have a thermometer in it to verify that the samples were being maintained at the proper temperature.
3. A file review on May 5, 2004, revealed numerous permit excursion as reported by the Respondent on DMRs. During the monitoring period from February 2001 through April 2004, there were 35 NH₃-N permit excursions and 18 fecal coliform permit excursions.
4. A file review on May 5, 2004, revealed that the Respondent did not properly operate and maintain its sewage treatment facility. Specifically, the Respondent repeatedly reported on noncompliance reports that the Fecal Coliform excursions were caused by malfunctioning ultraviolet lights, and the Ammonia excursions were caused by the nitrification zone modules becoming dirty.

Order:

1. To immediately take any and all steps necessary to meet and maintain compliance with the permit limitations and conditions contained in LPDES permit LA0020125.
2. In the event the Respondent believes that complete correction of the above cited deficiencies is not physically possible within 30 days, the Respondent shall submit a comprehensive plan for the expeditious elimination and prevention of such noncomplying discharges. Such plan shall provide for specific corrective actions taken and shall include a critical path schedule for the achievement of compliance within the shortest time possible.
3. To submit to the Enforcement Division a written report that includes a detailed description of the circumstances surrounding the cited violations and actions taken or to be taken to achieve compliance with the Compliance Order.

C) DMR Review

A review of the discharge monitoring reports for the period beginning July 2003 through June 2005 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
NH ₃ -N, Weekly Avg.	001	August 2003	4 mg/l	4.2 mg/l
NH ₃ -N, Monthly Avg.	001	February 2004	10 lb/day	16.0 lb/day
NH ₃ -N, Monthly Avg.	001	February 2004	2 mg/l	2.5 mg/l
NH ₃ -N, Weekly Avg.	001	February 2004	4 mg/l	4.8 mg/l
NH ₃ -N, Monthly Avg.	001	April 2004	10 lb/day	10.8 lb/day
NH ₃ -N, Monthly Avg.	001	April 2004	2 mg/l	3.7 mg/l
NH ₃ -N, Weekly Avg.	001	April 2004	4 mg/l	5.0 mg/l
DO, Monthly Avg.	001	May 2004	5.0 mg/l minimum	4.1 mg/l
NH ₃ -N, Monthly Avg.	001	May 2004	10 lb/day	17.7 lb/day
NH ₃ -N, Monthly Avg.	001	May 2004	2 mg/l	3.8 mg/l
NH ₃ -N, Weekly Avg.	001	May 2004	4 mg/l	6.9 mg/l
Fecal Coliform, Weekly Avg.	001	May 2004	400 cfu/100 ml	470 cfu/100 ml
Fecal Coliform, Monthly Avg.	001	July 2004	200 cfu/100 ml	239 cfu/100 ml
Fecal Coliform, Weekly Avg.	001	July 2004	400 cfu/100 ml	>1,000 cfu/100 ml
TSS, Weekly Avg.	001	December 2004	23 mg/l	35 mg/l
NH ₃ -N, Monthly Avg.	001	March 2005	10 lb/day	10.6 lb/day
NH ₃ -N, Monthly Avg.	001	March 2005	2 mg/l	2.3 mg/l
NH ₃ -N, Weekly Avg.	001	March 2005	4 mg/l	4.9 mg/l

XII. ADDITIONAL INFORMATION:

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.6 MGD.

Effluent loadings are calculated using the following example:

$$\text{CBOD}_5: 8.34 \text{ lb/gal} \times 0.6 \text{ MGD} \times 10 \text{ mg/l} = 50.04 \text{ lb/day}$$

At present, the Monitoring Requirements, Sample Types, and Frequency of Sampling as shown in the permit are standard for facilities of flows between 0.50 and 1.00 MGD.

Effluent Characteristics

Monitoring Requirements

<u>Measurement</u>	<u>Sample</u>
<u>Frequency</u>	<u>Type</u>

Flow

Continuous

Recorder

CBOD ₅	1/week	3 Hr. Composite
Total Suspended Solids	1/week	3 Hr. Composite
Ammonia-Nitrogen	1/week	3 Hr. Composite
Dissolved Oxygen	1/week	Grab
Fecal Coliform Bacteria	1/week	Grab
pH	1/week	Grab

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, general pretreatment language will be used due to the lack of either an approved or required pretreatment program.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

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Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Town of Mamou, Town of Mamou Wastewater Treatment Facility, January 23, 2006.